



LAURIN

α GUARD™

Next Generation of AGPs Replacer
Piglets Health & Immunity Assurance
Bioactive in entire GIT & Lymphatic

α GUARD™ LAURIN, the next generation of MCFAs for your total antibiotic free farming solution. Inspired by natural antimicrobial & antiviral activity from mother's milk (Hamost, M., 2007), **α GUARD™ LAURIN** is effectively against PRRSV, PEDV, African Swine Fever Virus, Avian Influenza Virus, Newcastle Virus, *Staphylococcus* spp., *Streptococcus* spp. **α GUARD™ LAURIN** provides an AGPs free farming solution for you without any further worry anymore.

Hamosh, M., 2007. Breastfeeding: Unraveling the Mysteries of Mother's Milk. Medscape Womens Health, 1(9), p. 4.

NEXT GENERATION OF AGPs REPLACER

Effect of **α GUARD™ LAURIN** on PRRS virus

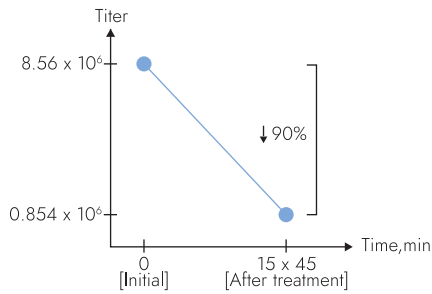
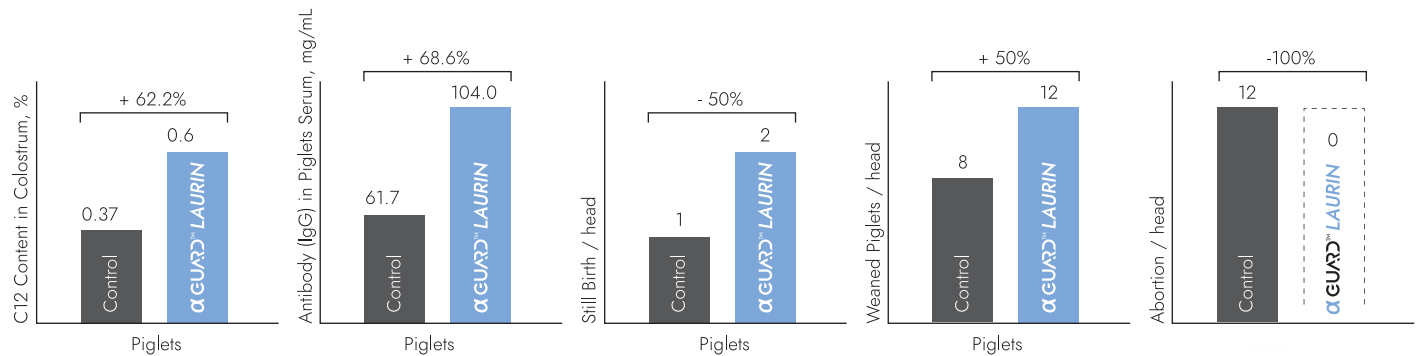


Table: Minimum inhibitory concentrations (MIC), µg/mL test against bacteria

Bacteria	Caprylic Acid (C8)	Capric Acid (C10)	Lauric Acid (C12)	Myristic Acid (C14)	α GUARD™ LAURIN
<i>Staphylococcus</i> spp.	>500	500	>500	>500	7.8
<i>Clostridium</i> spp.	>500	500	62.5	>500	62.5
<i>Bacillus</i> spp.	>500	>500	>500	>500	125
<i>Listeria</i> spp.	250	250	31.25	125	62.5
<i>Streptococcus</i> spp.	>500	250	125	>500	31.25

PIGLETS HEALTH & IMMUNITY ASSURANCE



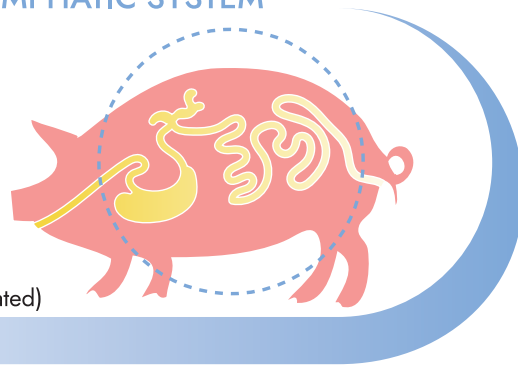
Kabara, et al., 1972. Fatty acids and derivate as antimicrobial agents. Antimicrobial Agents and Chemotherapy, 2(1), pp. 23-28.

Zhang, H., et al., 2009. Antibacterial interactions of monolaurin with commonly used antimicrobials and food components. Journal of Food Science, 74(7), pp. 18-21.

BIOACTIVE IN GIT & LYMPHATIC SYSTEM

Propionic acid	4.87
Butyric acid	4.82
Caprylic acid	4.89
Capric acid	4.90
Lauric acid	5.3

pKa (= pH where 50% is dissociated)



NUTRITION PROFILE	LAURIN
Monoglyceride of Lauric Acid*	>45
Total Fat Content	99.5
Carrier	0

* Test result based on oil extracted using Soxhlet extractor.

Batovska, D., et al., 2009. Antibacterial Study of the Medium Chain Fatty Acids and Their 1-monoglycerides: Individual Effects and Synergistic Relationships. Polish Journal of Microbiology, 58(1), pp. 43-47.

Preuss, et al., 2005. Minimum Inhibitory Concentrations of Herbal Essential Oils and Monolaurin for Gram-positive and Gram-negative Bacteria. Molecular and Cellular Biochemistry. 272(1-2), pp. 29-34.

DOSE	FEED RATION	PACKING	HANDLING
Pig	1-2kg/MT	12.5kg/BOX	Beads
Poultry	1.0kg/MT		



GREEN & NATURAL
LOT 2593-B, JALAN SERULING 59,
TAMAN KLANG JAYA,
SELANGOR, MALAYSIA

T: +60 3 5635 1633
WWW.GNNH.COM

